

HENRY KING WICKSTEED

In the year 1821, when twenty-one years of age, Gustavus William Wicksteed came to Canada upon the invitation of his uncle, John Fletcher, then judge of the St. Francis District, province of Lower Canada, with headquarters at Sherbrooke. His parents, Richard Wicksteed, of Shropshire, England, and Elizabeth (Tatlock) Wicksteed, did not come to Canada.

On May 16th, 1839, he married Anna, the eldest daughter of Captain John Fletcher, of the 72nd Regiment, not related to Judge Fletcher, and Martha (Ash) Fletcher. Anna was born at Barbadoes when the 72nd was stationed there.

G. W. Wicksteed studied law, and was called to the Bar in 1832. He was appointed assistant Law Clerk of the province of Quebec in 1828, and from 1841 to 1867 was Law Clerk to the Legislative Assembly of Canada. After Confederation he became Law Clerk to the Dominion House, a position he held until 1887, when he resigned at his own request. In 1854 he was created a Q.C. He resided at Kingston, Quebec, Toronto, Montreal and Ottawa, as the seat of government changed. He died in August, 1898, aged 98 years.

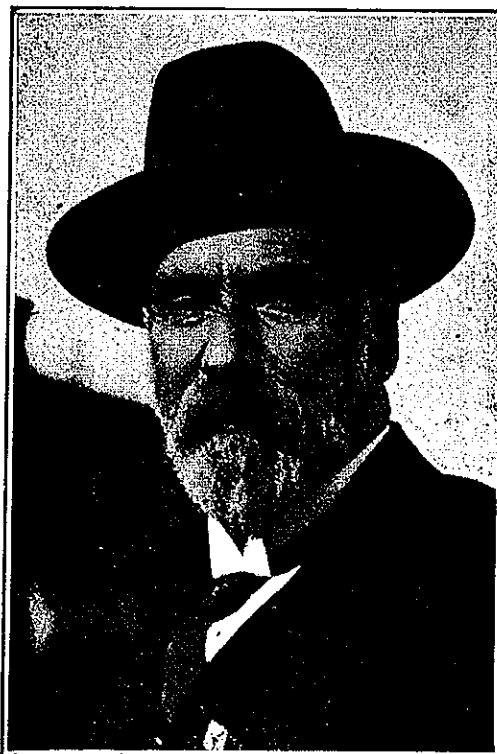
The children of G. W. Wicksteed were as follows:

Anna, died in infancy, 1841.

Richard John, LL.D., born Kingston, 1842, died Ottawa, 1912.

Harriet Elizabeth, born Kingston, 1844, died Ottawa, 1922.

Martha Henrietta, born Montreal, 1848, married 1878 to Arthur Henry Whitcher, of Sherbrooke (now of Ottawa). She died in 1888.



Louise Caroline, born Quebec, 1853, resides at Ottawa, unmarried.

Henry King, born Quebec, May 25th, 1855, died in Toronto, July 23rd, 1927.

Richard John, thirteen years the senior of Henry K., attended McGill University, graduating in Arts in 1863, M.A. in 1868, Law in 1868, and Hon. LL.D., 1879, a remarkable record. He practised law at Ottawa, and bequeathed his estate, including his valuable private library to McGill University. He was unmarried.

Henry K. Wicksteed received his primary education at Quebec and at Morin College. He matriculated in Science at McGill University in 1870, and graduated as Bachelor of Applied Science in 1873.

From 1865 to 1872, inclusive, there were no graduates in Science from McGill, and Mr. Wicksteed was one of the six who graduated after the engineering course had been revived as the course of Applied Science. During his summer vacations he had been employed in a junior capacity with the engineers engaged on the preliminary surveys for the Dominion Government railway to the Pacific.

Immediately after graduation in 1873 he was given employment in the field on exploration work between Lake Superior and Rainy Lake.

Assistants with any technical training were rare in those days, and it was not difficult to get a "job" on the surveys for the Canadian Pacific at \$40 per month and expenses, but what helped most in the first place to advancement was not the technical training, but a knowledge he had himself acquired of canoes and boats, camp outfit, and wilderness methods of travel. He was soon made leveller, then transit man and assisted in locating about 200 miles of line that became part of the main line of C.P.R. for 100 miles west of Fort William.

In 1875 he was appointed Chief Assistant to the District Engineer on Construction and Maintenance at Port Arthur, where Samuel Hazelwood was then District Engineer, and was also on location work.

About the time the Government had decided to transfer the Canadian Pacific Railway enterprise over to a private company Mr. Wicksteed entered into a partnership with his brother-in-law, Mr. Alexander Lord Russell, P.L.S. and civil engineer, who had been located at Port Arthur for some years (see Report for 1923). They carried on business as Land Survey-

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ors and Engineers for several years, during which period they completed and published the first map of the town of Port Arthur. Apparently this partnership continued in a somewhat loose manner for about ten years, during which time Mr. Wicksteed was frequently employed on railway work. In 1887 he was appointed Town Engineer, and in 1883 he selected harbour sites on the north shore for the C.P.R.

With A. L. Russell he visited Lake Nipigon, and ran the entire river from Lake Nipigon to Red Rock in one short November day.

When the C.P.R. Company was organized in 1880 the Dominion Government had then practically completed the line from Fort William to Winnipeg, and had made surveys eastward from Fort William. The Government engineers had eventually condemned the line along the north shore of Lake Superior as impracticable, and the Government were contemplating a line to run north of Lake Nipigon. Van Horne, the new president, decided, however, to make another attempt to prove the practicability or otherwise of the shore line, and in 1882 Mr. Wicksteed was entrusted with one section of this important work from Jack Fish Bay to the Pic River. At the close of two seasons' work the proposed grades of $1\frac{1}{2}\%$ were reduced to 1% , and the aggregate tunnelling from five miles to 1,500 lineal feet on Mr. Wicksteed's section. On the westerly section a practical line was also discovered by Mr. Wicksteed, and the C.P.R. was constructed on the revised lines.

He was employed on the north shore construction work until the latter part of 1884, when he resigned. The C.P.R. line was completed to Vancouver in 1885.

In the winter of 1885 he made an exploratory trip up the Etchemin River, from near Quebec City and across northern Maine to Woodstock, N.B., for the C.P.R. Company, but this line was not adopted, as the company purchased the International Railway and extended it.

Late in 1885 he returned to Port Arthur, and was instructed to make a reconnaissance of a proposed railway to Hudson's Bay from Winnipeg, but arriving too late at Winnipeg, he returned to Port Arthur. In 1886 he was appointed chief engineer of the Port Arthur, Duluth and Western Railway, which was being promoted by Sir Alex. Galt, but failing to secure the necessary financial support, the work was not completed.

In the autumn of 1887 he was employed as chief engineer on the location of the Brantford, Waterloo and Lake Erie Railway, where he was engaged for about two years. Before the completion of this railway it was purchased by the Toronto, Hamilton and Buffalo Railway, of which it is now an important part. Mr. Wicksteed also located a new line from Hamilton to Toronto.

From 1890 to 1899 he was variously employed. During this period he located a line for the G.T.R. from the Sarnia Tunnel to the Great Western air line at Glencoe, made surveys on G.T.R. between Hamilton and Niagara Falls in anticipation of double tracking work, was on the G.T.R. double track construction work between Montreal and Toronto, was contractor's engineer on construction of the Soulanges Canal and miscellaneous practice. He was also employed in 1894 on the line location of the proposed Nipissing and James Bay Railway.

In the summer of 1899 he joined the staff of the Canadian Northern Railway. From 1902 to 1905 he was chief engineer on the James Bay Railway. The Toronto-Sudbury section was constructed in 1903-1905. Mr. T. H. White succeeded Mr. Wicksteed as chief engineer. About 1904 the two branches of location and construction were separated, and Mr. Wicksteed was appointed chief engineer of location and surveys for the entire northern system, a position he held for about twenty years, and until the line was completed to Vancouver. This work took him to the eastern provinces, Alberta, British Columbia and Minnesota. In 1900-1902 he was on the Inverness and Richmond and the Halifax and South Western Railways, both in Nova Scotia.

Between 1904 and 1914 Mr. Wicksteed located about 2,000 miles of railway, including the entrances to Quebec, Montreal and Toronto. The tunnel beneath Mount Royal was a bold undertaking that originated with Mr. Wicksteed, a work that was successfully carried out in 1910-1914.

On one section of the C.N.R., 250 miles in length, through North Western Ontario, the greatest difference in elevation is less than 100 feet. This section was also constructed at a comparatively low cost.

He located in 1903-05 the Toronto-Sudbury line.

1905, the Ottawa-Hawkesbury line.

1906, Ottawa and French River (built to Nipissing Ju.; Garneau-Quebec cut-off, Montreal-Hawkesbury line.

1906-1907, Key branch to Georgian Bay.

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1907-1909, Toronto and Ottawa line, St. Jerome and St. Eustache line.

1908-1912, Sudbury-Port Arthur line.

1911-1912, Toronto to Niagara Falls line, Ottawa-Capreol line.

1912, Mount Royal tunnel, Rawdon (P.Q.) branch; Huberdeau-St. Remi; Toronto Eastern (Toronto to Bowmanville electric line).

1914-1915, in Venezuela, for Mackenzie and Mann, locating 175 miles railway from the coal mines in the interior to the coast.

1916-1918, revising and extending lines in Provinces of Quebec and Ontario for Canadian Northern Railway.

1917-1918, surveys of Rosedale (Alberta) Coal Fields for Mackenzie-Mann interests.

After the absorption of the C.N.R. by the Canadian National Railway, in 1918, he remained in the employ of the latter company until 1921, when he severed his connection.

In 1921 he made surveys for a proposed railway in Brazil and for harbour improvements at Sao Paulo for the Brazilian Development Co.

1924, reconnaissance surveys, partially by aeroplane, for Abitibi Southern Railway, a project in northern Quebec to connect Rouyn mining field with existing railway to the south.

Mr. Wicksteed was a Charter Member of the Canadian Society of Civil Engineers, the date of his enrollment being January 20th, 1887.

In 1925 he was elected a Member of Council.

On January 7th, 1886, he qualified as a Provincial Land Surveyor in the Province of Ontario. When in partnership with Mr. A. L. Russell, at Port Arthur, he practised land surveying, and on railway location work in the Province of Ontario his qualifications as a surveyor were useful and convenient. His exceptionally active life was, however, spent on railway work, chiefly on explorations and on location.

Mr. Wicksteed was a Member of the Association of Ontario Land Surveyors from the year of its organization, and during the last few years had been an active member of the Committee on Biography.

He contributed the following papers to the Ontario Association: 1888, "Wooden and Composite Bridges;" 1891,

"Theory of Railway Location;" 1892, "Railway Surveys;" 1895, "Triangulation Work."

He was a prolific writer, and contributed many interesting articles to technical societies and engineering periodicals not only in Canada, but in the United States..

He resided at Port Arthur from 1879 to 1886; at Brantford, 1887 to 1889; Cobourg, 1890 to 1914; and in Toronto afterwards.

In January, 1922, he was elected a Fellow of the Royal Society of Arts, and on January 29th, 1923, a Fellow of the Royal Geographic Society, a distinguished honor.

He was a Member of the Canadian Institute, Royal Canadian Yacht Club (Toronto), Albany Club (Toronto), University Club (Montreal), Engineers' Club (Montreal) and Royal St. Lawrence Yacht Club (Montreal). He was an enthusiastic yachtsman, and not only designed several yachts but actually constructed them.

In 1895 he undertook yacht building at Dorval, Quebec, in connection with the Royal St. Lawrence Yacht Club, Mr. G. H. Duggan, another enthusiastic yachtsman, being associated with him in this venture.

In 1879 he married at Port Arthur Miss Helen Munro, daughter of Alexander Munro, of Toronto. There were two children, Anna Winnifred, born 1880, unmarried, of Ottawa, and a son, born 1882, who died in infancy. Mrs. Wicksteed died on November 12th, 1882, when Mr. Wicksteed was on survey work east of Port Arthur.

On October 3rd, 1885, he married Miss Elfrida Louise Codd, a daughter of Henry Codd, of Ottawa, and granddaughter of Rev. Codd, of Norfolk, England. She was a sister of the wife of Mr. A. L. Russell, and a niece of Dr. Codd, of Winnipeg.

The children by his second marriage were as follows: (1) Henry Gustavus, born 1887, died in infancy; (2) Erie Elfrida, married Hector Morrison, Shawinigan, Que; (3) Emily Dora, unmarried, Toronto; (4) Marguerite Helen, married H. Thomas Morrison, of C.N.R., Toronto, Ont.; (5) Caroline Phyllis, married Walter Ellis, Detroit.

Mr. Wicksteed was a man of robust physique, and always enjoyed the best of health until his last illness.

He died at St. Michael's Hospital on July 23rd, 1927, following an illness of three or four weeks.

The funeral service was held at the residence of Mr. H. T. Morrison, 68 Manor Road East, Toronto, on July 25th. He was buried in the family plot in Beechwood Cemetery, Ottawa, on the following day.

The following excerpts from Mr. Wicksteed's own articles will be of interest:

"I have suffered many hardships; several times nearly lost my life in Lake Superior in mid-winter in open boats and canoes, and once having to drag a frozen and thawed-out foot 25 miles to Fort William. Often I have been short of any but the barest necessities of life for weeks, on two occasions without even them for days. I have slept in the open many weeks in temperatures ranging from zero to 40 degrees F. below, and have returned to civilization more than once to find the closest friends and nearest and dearest relatives dead weeks before. But the desire for achievement or the 'call of the wild,' or what H. G. Wells calls 'Undying Fire,' name it as you will, and ascribe it to vanity or ambition, or what you like—this something has always led me back when called on, with real pleasure and satisfaction, to the work which I could do best, and possibly a little better than my colleagues."

"Professional Engineer, July, 1926."

On one occasion he travelled 500 miles on foot in three weeks, making seventy miles in the last 24 hours.

He refers to his work on the C. Northern Railway from 1899 to 1919 in the following words:

"The pecuniary returns were not great, but there was a glamour and romance about the work and its two remarkable heads, Mackenzie and Mann, men of courage and perseverance and tenacity such as the world has seldom seen, and which was worth a good deal in itself—and which seemed to permeate every member of a very able staff with a spirit of comradeship such as is rare in large organizations."

"Measured by ordinary standards of dollars gained and invested, his success has not been conspicuous, and if he is now fairly independent, and not compelled to ask for a pension or be a burden upon his country, it is because of habits of thrift on his own part and that of a North of England father before him. If, on the other hand, success be measured by good work and utility to his generation, his success may perhaps be considered reasonable. He has never solicited a 'job,' still less ever tried to oust anyone else, and he has never been 'fired' from one. His reports have never been questioned as to accuracy, and very seldom as to conclusions arrived at."